

Practice

For use with pages 130–136

Tell whether the given value of the variable is a solution of the equation.

1. $41 - 8x = -6x - 23$; $x = -9$

2. $4x + 13 = -9 - 3(x + 9)$; $x = -7$

3. $-2(3x + 7) = -3(2x + 8)$; $x = -5$

4. $-9x + 7 = 25 + 2(5 - x)$; $x = -4$

Solve the equation. Check your solution.

5. $12x - 28 = -63 + 7x$

6. $6x - 21 = 33 + 9x$

7. $-15x = -5(3x + 7)$

8. $16x - 19 = 113 - 6x$

9. $-19x - 34 = 56 - x$

10. $-6(4x + 3) = 6(-4x - 3)$

11. $3(-2x + 5) = 11 - 4x$

12. $14 - 9x = -8(10 + x)$

13. $-3(8x + 11) = 6(-4x - 13)$

14. $5x - 8 = 13 + 7(x - 3)$

15. $15x + 24 = 8(10 + 3x) - 2$

16. $-9x + 15 = -22 - 4(x + 12)$

Practice

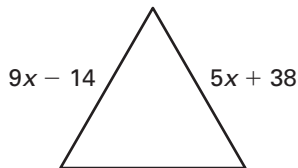
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Write the verbal sentence as an equation. Then solve the equation.

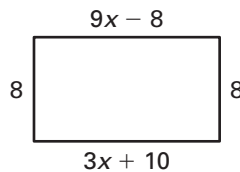
17. Negative thirteen times a number plus 20 is equal to -11 times the number plus 38.
18. Seventeen less than 6 times a number is equal to 47 plus 10 times the number.
19. Twenty nine less than -10 times a number is equal to -18 times the number plus 91.
20. Seventeen times a number minus 56 is equal to 10 times the number minus 63.

Find the perimeter of the triangle or rectangle. The sides of the triangle are equal in length.

21.



22.



23. You are buying flowers to hand out at a school dance. Roses cost \$30 for a dozen but cost more if bought individually. With the money you have, you can buy 7 dozen and 4 single roses, or 64 single roses. How much is one rose? How much money do you have?
24. The populations of two towns are changing at steady rates. One town has a population of 25,500. Its population is increasing by 2000 people each year. The other town has a population of 47,900. Its population is decreasing by 800 people each year. If the rates for each town remain the same, in how many years will the populations be the same?